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CLAIMS

1. A method for diagnosing predisposition for obesity in a human individual, comprising
 - 5 (a) obtaining a biological sample containing at least one nucleic acid molecule from said human individual; and
 - (b) analyzing said nucleic acid molecule to detect a genetic polymorphism in the human neuropeptide Y gene at a position defined as position 1128 in Figure 7.
- 10 2. The method according to claim 1 wherein the said polymorphism results in the substitution of leucine by proline at residue 7 in the signal peptide part of pre-pro-neuropeptide Y.
3. The method according to claim 1 or 2 wherein predisposition for obesity is
15 determined as a genetic susceptibility for increased body-mass index.
4. A method for diagnosis of one or more single nucleotide polymorphisms in the neuropeptide Y gene in a human individual, comprising determining the sequence of the nucleic acid of the said human individual at one or more positions as defined
20 in Figure 7, said positions selected from:
-602;
-399;
-84;
1008;
25 1057; and
8402.
5. The method according to claim 4 for use in assessing the predisposition of an individual to a medical condition mediated by neuropeptide Y.
- 30 6. The method according to claim 5 wherein said medical condition is obesity.

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7. The method according to claim 6 wherein obesity is determined by an increased body-mass index.
8. The method according to any one of claims 4 to 6 wherein the said polymorphism
5 is in position - 602, -399, or -84 in the promoter region of the human neuropeptide Y gene.
9. A nucleic acid molecule comprising at least 10 contiguous nucleotides of the sequence shown in Figure 7, having
10 T at position -602;
T at position -399;
C at position -84;
T at position 1008;
G at position 1057; and/or
15 G at position 8402.